plural server means for performing manipulations on the object displayable within the client means;

configuration store means for storing an association between the object class identifying means for the object and the server means; and

means for receiving a request to perform a manipulation on the object via the client means;

receptive to the means for receiving a request, means for consulting the configuration store means and determining an appropriate server means out of the plural server means to perform the manipulation based on the object class identifying means; and

means for launching the appropriate server means to perform the manipulation on the object.

82. (New) A computer-readable medium containing instructions for causing a computer system to perform the method of claim 27.

Sub F2

83. (New) A computer-readable medium containing instructions for causing a computer to perform the method of claim 78.

REMARKS

In the Office action of August 29, 2000, the Examiner issued a restriction of the claims into three groups:

1) Group 1 includes claims 27-70;
2) Group 2 includes claims 71-79;
3) Group 3 includes claims 80-81.

Applicants respectfully elect Group 2 subject to the traverse with respect to claim 81, below. Please contact the applicants' representative indicated below, should there be any questions regarding this election or the accompanying amendments.

Further, please amend claims 27-29, 34-35, 40-44, 49, and 71 as indicated herein, and please cancel claims 50-70, and 80 without prejudice. Claims 27-29, 34-35, 40-44, and 49 have

been amended to depend from claims within Group 2 and therefore now fall within Group 2. New dependent claims 82 and 83 have been drafted to fall within Group 2.

Finally, Applicants have carefully considered the Examiner's position as presented in the Action, however upon review of the groups designated in the restriction, Applicants believe Claim 81 more properly belongs in Group 2. For example Claim 81 recites a "means for launching the appropriate server means to perform the manipulation on the object" and does not recite the word "handler."

Accordingly, Applicants respectfully traverse the restriction of Claim 81, and reserve the right to appeal the restriction to the Group Director.

CONCLUSION

The claims in their present form should now be allowable. Such action is respectfully requested.

Respectfully submitted,

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Marked-up Version of Amended Claims
Pursuant to 37 C.F.R. §§ 1.121(b)-(c)

27. (Amended) ~~A computer-based method for providing a client with data format information relating to data formats supported by a server, the method comprising:~~

~~under control of server code, providing the data format information;~~

~~storing the provided data format information in a persistent registry; and~~

~~under control of the client,~~

~~retrieving from the persistent registry the stored data format information; and~~

~~determining from the retrieved data format information data formats supported by the server.~~ The method of claim 71 wherein the client determines the server based on an association with the class identifier.

28. (Amended) The method of claim 27 wherein the ~~server code is code executed~~ association is recorded during installation of the server.

29. (Amended) The method of claim 27 wherein the ~~server code is code executed~~ association is recorded when the server is launched.

30. (Unchanged) The method of claim 27 including when the server supports a data format that is compatible with the client, launching the server.

31. (Unchanged) The method of claim 30 wherein the client is executing in a process and the server is launched in a separate process.

32. (Unchanged) The method of claim 30 wherein the client is executing in a process and the server is launched in the same process.

33. (Unchanged) The method of claim 30 wherein the client and the server exchange data using a compatible format.

34. (Amended) The method of claim 27 wherein the client determines the ~~data formats~~ association while the server is not executing.

35. (Amended) ~~A computer-based method for determining the data formats that are supported by a server, the method comprising:~~

~~retrieving from a persistent registry data format information, the data format information being provided by server code for storage in the persistent registry; and~~

~~determining from the retrieved data format information data formats supported by the server.~~ The method of claim 71 wherein the server records in the configuration store, an association between itself and the class identifier.

36. (Unchanged) The method of claim 35 including when the server supports a data format that is compatible with the client, launching the server.

37. (Unchanged) The method of claim 36 wherein the client is executing in a process and the server is launched in a separate process.

38. (Unchanged) The method of claim 36 wherein the client is executing in a process and the server is launched in the same process.

39. (Unchanged) The method of claim 36 wherein the client and the server exchange data using a compatible format.

40. (Amended) The method of claim ~~35~~ 36 wherein the client determines the data formats while the server is not executing.

41. (Amended) ~~A computer-based method for supplying data format information for data formats supported by a server, the method comprising:~~

~~under control of server code,~~

~~retrieving the data format information; and~~

~~storing the data format information in a persistent registry so that a client can retrieve the data format information from the registry and determine the data formats that are supported by the server.~~ The method of claim 71 for supplying the server to perform the requested manipulation wherein the server populates the configuration store with class identifiers it supports.

42. (Amended) The method of claim 41 wherein the client determines ~~the data formats~~ the server that supports the class identifier while the server is not executing.

43. (Amended) The method of claim 41 wherein the server ~~code is code executed~~ populates the configuration store during installation of the server.

44. (Amended) The method of claim 41 wherein the server ~~code is code executed~~ populates the configuration store when the server is launched.

45. (Amended) The method of claim 41 including when the server supports a data format that is compatible with the client, launching the server.

46. (Unchanged) The method of claim 45 wherein the client is executing in a process and the server is launched in a separate process.

47. (Unchanged) The method of claim 45 wherein the client is executing in a process and the server is launched in the same process.

48. (Unchanged) The method of claim 45 wherein the client and the server exchange data using a compatible format.

49. (Amended) A computer-readable medium containing instructions for causing a computer system to ~~provide a client with data format information relating to data formats supported by a server, by:~~

~~under control of server code, providing the data format information;~~

~~storing the provided data format information in a persistent registry; and~~

~~under control of the client,~~

~~retrieving from the persistent registry the stored data format information;~~

~~and~~

~~determining from the retrieved data format information data formats supported by the server.~~ perform the method of claim 71.

50. (Canceled) ~~The computer-readable medium of claim 49 wherein the server code is code executed during installation of the server.~~

51. (Canceled) ~~The computer-readable medium of claim 49 wherein the server code is code executed when the server is launched.~~

52. (Canceled) ~~The computer-readable medium of claim 49 including when the server supports a data format that is compatible with the client, launching the server.~~

53. (Canceled) ~~The computer-readable medium of claim 52 wherein the client is executing in a process and the server is launched in a separate process.~~

54. (Canceled) ~~The computer-readable medium of claim 52 wherein the client is executing in a process and the server is launched in the same process.~~

55. (Canceled) ~~The computer-readable medium of claim 52 wherein the client and the server exchange data using a compatible format.~~

56. (Canceled) ~~The computer-readable medium of claim 49 wherein the client determines the data formats while the server is not executing.~~

57. (Canceled) ~~A computer-readable medium containing instructions for causing a computer system to determine the data formats that are supported by a server, by:~~

~~retrieving from a persistent registry data format information, the data format information being provided by server code for storage in the persistent registry; and~~

~~determining from the retrieved data format information data formats supported by the server.~~

58. (Canceled) ~~The computer-readable medium of claim 57 including when the server supports a data format that is compatible with the client, launching the server.~~

59. (Canceled) ~~The computer-readable medium of claim 58 wherein the client is executing in a process and the server is launched in a separate process.~~

60. (Canceled) ~~The computer-readable medium of claim 58 wherein the client is executing in a process and the server is launched in the same process.~~

61. (Canceled) ~~The computer-readable medium of claim 58 wherein the client and the server exchange data using a compatible format.~~

62. (Canceled) ~~The computer-readable medium of claim 57 wherein the client determines the data formats while the server is not executing.~~

63. (Canceled) ~~A computer-readable medium containing instructions for causing a computer system to supply data format information for data formats supported by a server, by:~~

~~under control of server code,~~

~~retrieving the data format information; and~~

~~storing the data format information in a persistent registry so that a client can retrieve the data format information from the registry and determine the data formats that are supported by the server.~~

64. (Canceled) ~~The computer-readable medium of claim 63 wherein the client determines the data formats while the server is not executing.~~

65. (Canceled) ~~The computer-readable medium of claim 63 wherein the server code is code executed during installation of the server.~~

66. (Canceled) ~~The computer-readable medium of claim 63 wherein the server code is code executed when the server is launched.~~

67. (Canceled) ~~The computer-readable medium of claim 63 including when the server supports a data format that is compatible with the client launching the server.~~

68. (Canceled) ~~The computer-readable medium of claim 67 wherein the client is executing in a process and the server is launched in a separate process.~~

69. (Canceled) ~~The computer-readable medium of claim 67 wherein the client is executing in a process and the server is launched in the same process.~~

70. (Canceled) ~~The computer-readable medium of claim 67 wherein the client and the server exchange data using a compatible format.~~

71. (Amended) A method in a client and a server computer system for manipulating an object displayable in the client and identified by a class identifier, the computer system having a configuration store for storing the class identifier and associating the class identifier with a server out of a plurality of servers, the method comprising:

requesting by the client through an application programming interface a manipulation to be performed on the object;

determining from the configuration store via the class identifier, a server out of a plurality of servers to perform the requested manipulation on the object; and

sending a message ~~from the client~~ to the server to perform the requested manipulation on the object.

72. (Unchanged) The method of claim 71, wherein the object displayable in the client is a first object, the method further comprising:

depicting the first object as appearing inside a second object displayable in the client.

73. (Unchanged) The method of claim 71, wherein the client determines from the configuration store and displays for a user a list of available manipulations on the object.

74. (Unchanged) The method of claim 71, wherein the server is started up in response to receiving the message.

75. (Unchanged) The method of claim 71, wherein the server shuts down after completion of manipulations requested in the message.

76. (Unchanged) The method of claim 71 wherein a user can select a new object from amongst a plurality of embedded or linked objects displayed in a graphical user interface.

77. (Unchanged) The method of claim 71 wherein a user can select a manipulation or procedure to be performed on a selected object from amongst a plurality of manipulations or procedures displayed in a graphical user interface.

78. (Unchanged) A method in a client and a server computer system, the computer system having a configuration store for storing identifiers of available embedded or linked objects and identifier of servers associated with the embedded or linked objects, the method comprising:

requesting by a user from the client, creation of an embedded or linked object;

determining from the configuration store and presenting to the user by the client a list of the available linked or embedded objects;

selecting by the user from the available list presented by the client an object to be linked or embedded within a container object; and

determining a server associated with the linked or embedded object to implement the selected linked or embedded object and sending a message from the client to the server to create the selected linked or embedded object;

whereby the created linked or embedded objected is created by the server and the user can edit or otherwise manipulate the linked or embedded object.

79. (Unchanged) The method of claim 78 wherein the user is able to edit or manipulate a linked or embedded object by selecting an action available on a client menu.

80. (Canceled) ~~A method in a client and a server computer system, the method comprising:~~

~~requesting by the client through an application programming interface a manipulation to be performed on the embedded or linked object;~~

~~determining from a configuration store a server to perform the requested manipulation on the embedded or linked object;~~

~~determining from the configuration store that the server has available a dynamically linkable handler assigned to perform the requested manipulation; and~~

~~performing by the dynamically linkable handler the requested manipulation.~~

81. (Unchanged) A computer software system comprising:

client means for displaying an object displayable within the client means, wherein the object is associated with an object class identifying means;

plural server means for performing manipulations on the object displayable within the client means;

configuration store means for storing an association between the object class identifying means for the object and the server means; and

means for receiving a request to perform a manipulation on the object via the client means;

receptive to the means for receiving a request, means for consulting the configuration store means and determining an appropriate server means out of the plural server means to perform the manipulation based on the object class identifying means; and

means for launching the appropriate server means to perform the manipulation on the object.

☒ Please return the enclosed postcard to confirm that the items listed above have been received.

Respectfully submitted,

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